

EXECUTIVE OFFICER SUMMARY REPORT
June 11, 2003

ITEM: 12

SUBJECT: Revision of NPDES Permit: Encina Wastewater Authority Discharge to the Pacific Ocean through the Encina Ocean Outfall, San Diego County. If adopted, the addendum would allow discharges of excess recycled water and reverse osmosis waste brine from the proposed City of Carlsbad, Carlsbad Water Recycling Facility to the Pacific Ocean through the Encina Ocean Outfall (tentative Addendum No. 2 to Order No. 2000-36, NPDES No. CA0107395). (*Victor Vasquez*)

PURPOSE: To consider allowing the discharge of excess recycled water and reverse osmosis waste brine from the proposed Carlsbad Water Recycling Facility to the Pacific Ocean through the Encina Ocean Outfall and to reflect the adoption of Order No. 2001-352, *Master Reclamation Permit with Waste Discharge Requirements for the Production and Purveyance of Recycled Water for Carlsbad Municipal Water District, Carlsbad Water Recycling Facility (CWRF), San Diego County*, by modifying the Findings and Discharge Specifications of Order No. 2000-36 (NPDES No. CA0107395), *Waste Discharge Requirements for the Encina Wastewater Authority Discharge to the Pacific Ocean through the Encina Ocean Outfall, San Diego County*.

PUBLIC NOTICE: A newspaper notice was published in the North County Times on May 9, 2003. Copies of tentative Addendum No. 2 were mailed on May 12, 2003 to the discharger and all known interested parties and agencies for review and comment. These actions served as the 30-day official public notification for this action, as required by Title 40, Section 124.10 of the Code of Federal Regulations (CFR).

DISCUSSION: The Encina Water Pollution Control Facility (EWPCF) discharges secondary wastewater effluent to the Pacific Ocean through the Encina Ocean Outfall (EOO) subject to Order No. 2000-36, *Waste Discharge Requirements for the Encina Wastewater Authority Discharge to the Pacific Ocean through the Encina Ocean Outfall, San Diego County*. The authorized maximum daily discharge

flowrate through the EOO is 38 million gallons per day (MGD). Effluent from the EWPCF accounts for the majority of the approximately 26 MGD currently discharged through the EOO with additional contributions from two existing smaller water reclamation facilities.

The Carlsbad Water Recycling Facility (CWRF), when completed, will divert and treat secondary effluent from EWPCF to produce up to 4 MGD of recycled water for reuse in the Carlsbad Municipal Water District service area subject to Order No. 2001-352, *Master Reclamation Permit with Waste Discharge Requirements for the Production and Purveyance of Recycled Water for Carlsbad Municipal Water District, Carlsbad Water Recycling Facility (CWRF), San Diego County*. The treatment unit operations and processes at CWRF will consist of continuous backwash granulated media filtration, microfiltration or ultrafiltration (MF/UF), reverse osmosis (RO) membrane filtration, chlorine disinfection, and solids thickening. Solids from filter backwash processes at CWRF will be returned to EWPCF for treatment and disposal. CWRF will discharge up to 0.2 MGD of waste brine from RO processes directly to the EOO. Additionally, CWRF has authorization from EWA to discharge excess recycled water that exceeds the storage capacity at CWRF through the EOO.

On March 4, 2003, the Regional Board received a Report of Waste Discharge (RWD) submitted by EWA requesting modifications to Order No. 2000-36 which would reflect the adoption of Order No. 2001-352 and allow the discharge of brine from reverse osmosis processes (RO brine) from CWRF to the EOO.

The RWD stated that CWRF operations will not result in any additional mass emission of pollutants through the EOO because CWRF is skimming and treating secondary effluent from EWPCF which otherwise would have been discharged through the EOO directly. The RWD stated that CWRF operations will result in a reduction of the effluent flowrate discharged through the EOO of up to 4 MGD. Because of the flowrate reduction and the waste brine that will be returned to the EOO, the RWD stated that the operation of CWRF will result in an increase in the concentrations of dissolved constituents discharged through the EOO up to approximately six percent of current concentrations. The RWD reported that the projected higher concentrations are still in compliance with effluent limitations established in Order No. 2000-36.

EWA explicitly did not request a modification of the effluent

limitations contained in Order No. 2000-36. No change in the effluent limitations would be warranted if the minimum initial dilution factor (DF) used to calculate the effluent limitations is not affected by the projected increase in the combined EOO effluent's dissolved constituent concentrations. Regional Board staff determined that the increase in dissolved constituent concentrations in the combined EOO effluent will result in a negligible increase in effluent density and thus will have a negligible effect on the previously calculated DF. A report from EWA dated May 30, 1996, reported that a reduction in the discharge flowrate from 38 MGD to 30 MGD would increase the DF from 200 to 216, thus resulting in less stringent effluent limitations. Maintaining the DF at 200, in light of the proposed reduction in discharge flowrates through the EOO, will therefore be more protective of water quality and will not require recalculation of the effluent limitations.

EWA has stated that the sampling station for the Encina Ocean Outfall for purposes of determining compliance with Order No. 2000-36 is downstream of the proposed discharge connections from CWRF and existing connections from the satellite reclamation plants. The sampling station will provide access for monitoring the total combined effluent discharged through the EOO.

To date, no comments on the tentative Addendum have been received. If comments are received, copies of the comments and staff responses will be provided to the Regional Board in advance of the June 11 meeting.

COMPLIANCE RECORD: Over the past 12 months, no effluent violations and one non-effluent violation of Order No. 2000-36 have occurred. The non-effluent violation was determined during an inspection on February 13, 2003 of the Shadowridge Water Reclamation Plant (SWRP), one of the existing satellite reclamation plants discharging excess recycled water to the EOO. During the inspection, it was determined that samples taken at SWRP for carbonaceous biochemical oxygen demand, biochemical oxygen demand, and oil and grease analyses were not preserved according to techniques contained in 40 CFR Part 136 prior to delivery to the analytical laboratory. The last effluent violation occurred on January 1, 2002 when the effluent exceeded the daily concentration limit for total suspended solids.

LEGAL CONCERNS: None.

SUPPORTING
DOCUMENTS:

1. Site Map
2. Tentative Addendum No. 2 to Order No. 2000-36
3. Transmittal letter dated May 12, 2003.

RECOMMENDATION:

The adoption of tentative Addendum No. 2 to Order No. 2002-36 is recommended.